

# Polyfleece SX<sup>®</sup> 100

Preapplied, fully bonded waterproofing membrane

## TECHNICAL DATASHEET

Status 09.12.2022

Item no. S01501020

# **PROPERTIES**

Polyfleece SX® 100 is a high quality non-woven seal fleece with a robust LDPE-foil cover with an exceptional flexibility. The high flexibility of the membrane results in a very high crack bridging capability at places where cracks will occur within the concrete.

Polyfleece SX® 100 is a preapplied, fully bonded waterproofing membrane which is installed on the substrate before the concrete is poured. The installation is fast and safe. During the concrete pour the fleece absorbs parts of the cement water mix. Once the concrete cures this results in a very high integral bond of the membrane to the concrete which will effectively prevent any lateral water migration in between the membrane and the concrete at places where the membrane is locally damaged.

Polyfleece SX® 100 is applied as additional safety for watertight structures.

## **APPLICATION**

Polyfleece SX® 100 is applied as linear or full surface external seal for all kinds of reinforced concrete structures with watertight concrete. Polyfleece SX® 100 is part of the preapplied, fully bonded membrane system which does not only includes innovative system components but also a detailed planning, an installation by qualified workmanship and eventually survey for the correct installation, incl. documentation.

Polyfleece SX® 100 can be used for bonding to fresh concrete as a preapplied waterproofing membrane, therefore Polyfleece SX® 100 is laid out on the substrate with its coated side facing the blinding layer or it will be fixed with its coated side towards the formwork in wall constructions. The position of the reinforcement is directly on the fleece side of the membrane by means of placing spacers first, subsequently concrete is then poured on top of this. The fleece will absorb a part of the concrete water. By doing so it integrally bonds to the concrete from which a high peel adhesion will occur. This function prevents any lateral migration of water between sealing membrane and concrete effectively which means that there will be no water migration even if damaged.

Alternatively Polyfleece SX® 100 can be post applied to existing structures. To ensure the sealing of existing buildings the fleece side faces in the direction of the construction. Polyfleece SX® 100 is installed with 2K Sealing adhesive SX® 1 on the concrete surface.

## **TECHNICAL DATA**

Dimensions	length	20,0 m	± 5,0 cm; MDV*	DIN EN 1848-2
	width	1,0 m	± 3,0 cm; MDV*	DIN EN 1849-2
	thickness	1,29 mm	± 5,0 %; MDV*	DIN EN 1849-2
	mass per unit area	800 g/m²	± 10.0 %: MDV*	



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Watertightness (method: water tightness 2,0bar 24h		pass	DIN EN 1928 (in accordance with)	
Tensile properties	lengthwise across	≥ 350 N/50mm** ≥ 250 N/50mm**	DIN EN 12311-2 DIN EN 12311-2	
Elongation at break	lengthwise across	≥ 20,0 %** ≥ 50,0 %**	DIN EN 12311-2 DIN EN 12311-2	
Joint strength	glued seam	≥ 250 N/50mm**	DIN EN 12317-2	
Resistance to tearing (nail shank)	lengthwise across	≥ 150 N** ≥ 150 N**	DIN EN 12310-1 DIN EN 12310-1	
Adhesion to concrete		0,52 N/mm²	DIN 1048	
Radon diffusion coefficient		$D = 0.39 * 10^{-12} \text{ m}^2/\text{s}$	ISO/TS 11665-13, 2017	
Radon diffusion length		L = 0.43 mm	ISO/TS 11665-13, 2017	
Resistance to temperature		-40 °C / +100 °C		
Color		white / blue		

<sup>\*</sup>MDV: Manufacturer's declared value (Herstellerangabe mit Toleranz)

## **PACKAGING & STORAGE**

#### **Dimensions**

Rolls 20,0 x 1,0m Pallet: 24x 20,0m<sup>2</sup> = 480m<sup>2</sup> Rolls 20,0 x 2,0m Pallet: 20x 40,0m<sup>2</sup> = 800m<sup>2</sup>

Polyfleece SX® 100 can be stored in the original unopened packaging for at least 12 months at temperatures between +5° C and +25°C.

## INSTALLATION

### Installation of Polyfleece SX® 100 in fresh concrete:

Underneath a basement slab Polyfleece SX® 100 is laid out with its coated side facing the blinding layer or it will be fixed with its coated side towards the formwork in wall constructions. The ready installed membrane has to be protected against mechanical damage by means of setting up protected walking paths and working areas. The position of the reinforcement is directly on the uncoated side of the seal fleece by means of placing spacers first, subsequently concrete is then poured on the fleece side of Polyfleece SX® 100, which will suck up a part of the concrete water. By doing so the concrete adheres closely to the fleece. It must be complied with a specific striking time of minimum 48 hours.

<sup>\*\*</sup>MLV: Manufacturer's limiting value (Grenzwert des Herstellers)



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### Installation of Polyfleece SX® 100 in existing buildings:

Polyfleece SX® 100 is bonded directly on the concrete surface. The surfaces where the seal fleece is installed on, must be firm, sustainable, clean and free of dust or loose particles. First the 2K Sealing adhesive SX® 1 is installed onto the concrete sub-surface (thickness around 1.0 mm), secondly the fleece side of Polyfleece SX® 100 is gently pushed into the humid adhesive.

Along the longitudinal seam the two protective films (blue protective film on fleece side, white protective film on opposite LDPE-side) of the self adhesive, preassembled tapes have to be removed before gluing the seam. The seam of the transverse joint must be carried out according to the installation manual. As an additional backup Polyfleece SX® 1000 fleece tape can be adhered over the seam

Storing and working with Polyfleece SX® 100 is trouble free; it is neither combustible nor toxic.

The working temperature of Polyfleece SX® 100 is from -10°C to +40°C (-5°C/+30°C construction device).

### **ACCESSORIES**

Order no S02410290	Polymer-swellingpaste SX® 100 cartridge 290 ml
Order no S02830291	Contact adhesive SuperX 1 PLUS
Order no S02500020	2K Sealing adhesive SX® 1 20 kg
Order no S02500010	2K Sealing adhesive SX® 1 10 kg
Order no S01902075	Polyfleece SX® 1000 – adhesive tape 75 mm L=20 m
Order no S01900025	Polyfleece SX® 1000 – fleece tape 80 mm L=25 m
Order no S01830253	Polyfleece SX® 1000 – Radon tape 80 mm L=25 m

#### Note:

The information on this data sheet is based on our experience and given to the best of our knowledge, but is not legally binding. Recommendations, which are at variance with those stated in this data sheet, are only binding for us, when confirmed in writing. The manufacturer is not responsible for damages resulting from the misuse or incorrect storage of the product. For the accuracy of this information we are liable within the scope of our delivery and service conditions. Creation date: 12/2022